

In the Claims:

1. (Currently Amended) A method of treating a subject having a disorder characterized by the presence of a tumor ~~one or more tumors~~ comprising inserting one or more miniaturized concentrated neutron emitting source(s) into said tumor ~~tumor(s)~~ and maintaining the source(s) in the tumor for a time sufficient to eradicate the cells of the ~~tumor(s)~~ tumor, wherein each of the neutron emitting source(s) has an outer diameter that is about 2 mm or less and about 100 μ g or more of californium-252.
2. (Original) The method of claim 1, wherein said tumor is malignant.
3. (Original) The method of claim 2, wherein said tumor is located in said subject's brain, cervix, oral cavity, esophagus, skin, lung, bladder, pancreas, prostate, intestine, stomach, thyroid gland, ovary, breast, or kidney.
4. (Original) The method of claim 2, wherein said tumor is located in said subject's brain.
5. (Original) The method of claim 4, wherein said tumor is a glioblastoma, an astrocytoma, a schwannoma, a malignant meningioma, an oligodendroglioma, a medulloblastoma, or a ependymoma.
6. (Canceled) The method of claim 1, wherein said miniaturized concentrated neutron emitting source comprises californium-252.

7. (Currently Amended) A method of treating a subject having a disorder characterized by the presence of one or more tumors comprising:

surgically removing the majority of said tumor(s); and

subsequently inserting a miniaturized concentrated neutron emitting source into the space previously occupied by the tumor(s) for a time sufficient to eradicate any tumor cells not surgically removed), wherein the neutron emitting source has a diameter that is 2 mm or less and about 100 μ g or more of californium-252.

8. (Original) The method of claim 7, wherein said tumor is malignant.

9. (Original) The method of claim 8, wherein said tumor is located in said subject's brain, cervix, oral cavity, esophagus, skin, lung, bladder, pancreas, prostate, intestine, stomach, thyroid gland, ovary, breast, or kidney.

10. (Original) The method of claim 7, wherein said tumor is located in said subject's brain.

11. (Original) The method of claim 10, wherein said tumor is a glioblastoma, an astrocytoma, a schwannoma, a malignant meningioma, an oligodendroglioma, a medulloblastoma, or a ependymoma.

12. (Canceled) The method of claim 7, wherein said miniaturized neutron emitting source comprises californium-252.

13. (Original) The method of claim 1 or claim 7, further comprising localizing a neutron capture compound to the cells of said tumor prior to insertion of said miniaturized neutron source.

14. (Original) The method of claim 13, wherein said neutron capture compound comprises boron-10.

15. (Original) The method of claim 13, wherein said neutron capture compound comprises gadolinium-157.

16. (Original) The method of claim 13, wherein said neutron capture compound is localized to said tumor cells by systemic administration of said compound.

17. (Original) The method of claim 13, wherein said neutron capture compound is localized to said tumor cells by direct administration of said compound to said tumor cells.

18. (Currently Amended) The method of claims 1 or 7, wherein said miniaturized concentrated neutron emitting source is 3 – 6 mm in length, has an outside diameter of .50 -2 mm, and contains ~~comprises~~ between 100µg and 1 mg of californium-252.

19. (New) The method of claim 1 further comprising adjusting a number of neutron emitting source(s) that are inserted according to a desired dose distribution in the tumor.

20. (New) The method of claim 7 further comprising adjusting a number of neutron emitting source that are inserted according to a desired dose distribution in the tumor.